

REMARKS


Prior to examination, Applicant respectfully requests entry of the present preliminary amendment. Claims 10 and 12 have been amended. Claims 13-20 have been added. Support for the amended claims and new claims can be found throughout the specification. Specifically, support for culturing the microorganism "in a medium comprising a concentration of dissolved oxygen that is at least 50% less than the oxygen concentration of the medium under oxygen saturation conditions", as recited in amended claims 10 and 12, can be found on page 6, lines 20-25. Support for the electron acceptors set forth in claim 15 can be found on page 1, lines 15-16. Support for the microorganisms set forth in claim 18 can be found on page 6, lines 8-15. Support for a "microorganism genetically engineered to express a foreign gene encoding an oxidoreductase", as recited in new claim 20, can be found on page 6, lines 16-19. No new matter has been added. Upon entry of the supplemental preliminary amendment, claims 10-20 are pending and under examination. Attached is a marked-up version of the changes being made by the current amendment.

No fee is believed to be due in connection with the filing of this paper. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

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Version with markings to show changes made

In the specification:

At page 1, line 1, delete "METHOD FOR ENHANCING ACTIVITY TO REGENERATE ELECTRON ACCEPTOR FOR OXIDOREDUCTASE IN MICROORGANISM CAPABLE OF PRODUCING SAID OXIDOREDUCTASE, AND USE OF MICROORGANISM PREPARED BY SAID METHOD" and replace with --METHOD FOR ENHANCED ELECTRON ACCEPTOR REGENERATION--.

In the claims:

Amend claims 10 and 12 as follows:

10. (Amended) A method for producing an oxidized form of an organic compound, the method comprising contacting the organic compound with [the microorganism of claim 9] a microorganism whose activity to regenerate an electron acceptor for oxidoreductase expressed by said microorganism is enhanced by the method comprising culturing the microorganism in a culture medium comprising a concentration of dissolved oxygen that is at least 50% less than the oxygen concentration of the medium under oxygen saturation conditions during the period that the oxidoreductase is expressed.

11. (Reiterated) The method according to claim 10, wherein the organic compound is alcohol.

12. (Amended) A method for producing an optically active alcohol, the method comprising contacting [the microorganism of claim 9] a microorganism with racemic alcohol to specifically oxidize either (S)-enantiomer or (R)-enantiomer in the racemate, wherein activity of the microorganism to regenerate an electron acceptor for oxidoreductase expressed by said organism is enhanced by the method comprising culturing the microorganism in a culture medium comprising a concentration of dissolved oxygen that is at least 50% less than the oxygen

concentration of the medium under oxygen saturation conditions during the period that the oxidoreductase is expressed.

The following claims have been added:

- 13. The method according to claim 10 or claim 12, wherein the concentration of dissolved oxygen is 20% or less saturation.
14. The method according to claim 10 or claim 12, wherein the concentration of dissolved oxygen is 10% or less saturation.
15. The method according to claim 10 or claim 12, wherein the electron acceptor is selected from the group consisting of nicotinamide adenine dinucleotide (NAD⁺), nicotinamide adenine dinucleotide phosphate (NADP⁺), cytochromes, molecular oxygen and quinones.
16. The method according to claim 10 or claim 12, wherein the oxidoreductase is alcohol dehydrogenase.
17. The method of claim 10 or claim 12, wherein the oxidoreductase is from *Candida parapsilosis*.
18. The method of claim 10 or claim 12, wherein the microorganism is selected from the group consisting of *Escherichia*, *Bacillus*, *Pseudomonas*, *Serratia*, *Brevibacterium*, *Corynebacterium*, *Streptococcus*, *Lactobacillus*, *Saccharomyces*, *Kluyveromyces*, *Schizosaccharomyces*, *Zygosaccharomyces*, *Yarrowia*, *Trichosporon*, *Rhodospiridium*, *Hansenula*, *Pichia*, *Candida*, *Neurospora*, *Aspergillus*, *Cephalosporium* and *Tricoderma*.
19. The method according to claim 18, wherein the microorganism is *Escherichia coli*.
20. The method according to claim 10 or claim 12, wherein the microorganism is genetically engineered to express a foreign gene encoding an oxidoreductase.--